HORIZON ENVIRONMENTAL INC.
Specialists in Site Assessment, Remedial Testing, Design and Operation

December 30, 2005

Ms. Misty Kaltreider
Solano County Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, California 94533

Subject: **Transmittal of Well Destruction Report**
Former Beacon Station No. 3699
921 Merchant Street, Vacaville, California

Ms. Kaltreider:

At the request of Ultramar Inc. Horizon Environmental Inc. (Horizon) is forwarding the enclosed *Well Destruction Report* dated December 29, 2005. The report documents destruction of the remaining monitoring wells MW-3 through MW-9 at the subject site. The wells were destroyed as part of final site closure activities.

Please call Horizon at 916-939-2170 if you have any questions or require additional information.

Sincerely,
HORIZON ENVIRONMENTAL INC.

Rexford Smith, P. G. # 5307
Project Manager

Enclosure

cc: Mr. Joe Aldridge, Ultramar Inc.
Mr. James Barton, Regional Water Quality Control Board, Central Valley Region

4970 Windplay Drive, #C5 • El Dorado Hills, CA 95762 • (916) 939-2170 • FAX (916) 939-2172
P.O. Box 5283 • Bakersfield, CA 93388 • (661) 589-8389 • FAX (661) 589-1456

December 29, 2005

Mr. Joe Aldridge
Ultramar Inc.
685 West Third Street
Hanford, California 93230

Subject: **Well Destruction Report**
Former Beacon Station No. 3699 SCDRM File No. 29-50025
921 Merchant Street
Vacaville, California.

Mr. Aldridge:

On behalf of Ultramar Inc. (Ultramar), Horizon Environmental Inc. (Horizon) has prepared this report documenting the destruction of groundwater monitoring wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8 and MW-9 associated with the subject site located in Solano County, as shown on Figure 1. This work was requested by the Solano County Department of Resource Management (SCDRM) in the attached letter dated November 8, 2005 in order to complete the case closure process.

Scope of Work

The scope of work included retaining Cascade Drilling, Inc. (Cascade), a licensed drilling contractor (C-57 #717510) from Rancho Cordova, California for destruction of monitoring wells MW-3 through MW-9, obtaining well destruction permits from SCDRM, updating the site-specific Health and Safety Plan, notifying Underground Services Alert, destruction of the monitoring wells and preparation of this report. All field work was conducted according to, where applicable, the attached Horizon Field Methods and Procedures.

The well destruction activities were completed in compliance with Bulletin 74-81 and 74-90 of the California Well Standards and SCDRM guidelines. Copies of the SCDRM Well Destruction Permits are attached to this report.

Well Destruction

On December 12 and 13, 2005, a Horizon geologist was on site to oversee Cascade perform well destruction activities. Measurements of the total depth (TD) of the wells and depth to water (DTW) from the tops of casing (TOC) of monitoring wells MW-3 through MW-9 were recorded by Horizon prior to well destruction. The TD and DTW measurement data, and the approximate casing depth below surface of the wells are as follows:

Well	DTW (Feet TOC)	Casing TD (Feet TOC)	Approximate Casing Depth (feet below surface)
MW-3	12.36	24.84	25
MW-4	11.24	25.61	25
MW-5	13.46	23.92	25
MW-6	11.08	22.07	22
MW-7	11.72	21.89	22
MW-8	10.18	21.08	20
MW-9	12.14	24.96	25

Cascade utilized hollow-stem auger equipment in the destruction of the monitoring wells. Groundwater monitoring wells MW-5, MW-8, and MW-9 were destroyed by drilling out all well materials to a total depth of approximately 25 feet below surface grade (bsg). Groundwater monitoring wells MW-3, MW-4, MW-6 and MW-7 were destroyed by grouting with neat cement slurry emplaced under pressure through a tremie set within three feet from the TD of the well. The neat cement level was brought to within five feet from the surface. Air pressure was applied to the grouted wells at 15 pounds per square inch (psi) for a period of approximately 10 minutes. Additional grout was placed in the casing to bring the level back up to within five feet from the surface. This process was continued until the grout level stabilized approximately 4 feet below top of casing. The upper five feet of each well casing and seal were drilled out, and the remaining excavation was filled with neat cement to within approximately 12 inches from the surface. Auger rinsate was placed in two 55-gallon drums for temporary on-site storage pending disposal by Ultramar.

In the paved areas, the top one foot of the excavations were backfilled with quick set aggregate cement mix and the surface was tinted with lampblack to match the surrounding surface. At the location of former monitoring wells MW-3, MW-4 and MW-6 located in the landscape planter, the upper 12 inches of the excavations were backfilled with excavated soil and topped off with landscape bark to match existing landscape material.

Four representative samples of the well cuttings were collected and submitted to Kiff Analytical LLC (Kiff) of Davis, a state-certified (#2236) analytical laboratory. Kiff prepared the four well cuttings samples as one composite sample and analyzed it for total petroleum hydrocarbons as gasoline (TPHg) and the volatile aromatic compounds benzene, toluene, ethylbenzene and total xylenes (BTEX) by Method EPA 8260B. No TPHg or BTEX were detected in the composite sample. The analytical report is attached. All surface completion and drilled out well materials were disposed to the Kiefer landfill in Sacramento County on December 14, 2005. The landfill scale ticket is attached.

Report Distribution

A copy of this report should be forwarded to:

Ms. Misty C. Kaltreider
Solano County
Department of Resources Management
675 Texas Street, Suite 5500
Fairfield, California 94533

Mr. Jim Barton
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, # 200
Rancho Cordova, California 95670

Please call Horizon at (916) 939-2170 if you have any questions regarding this report.

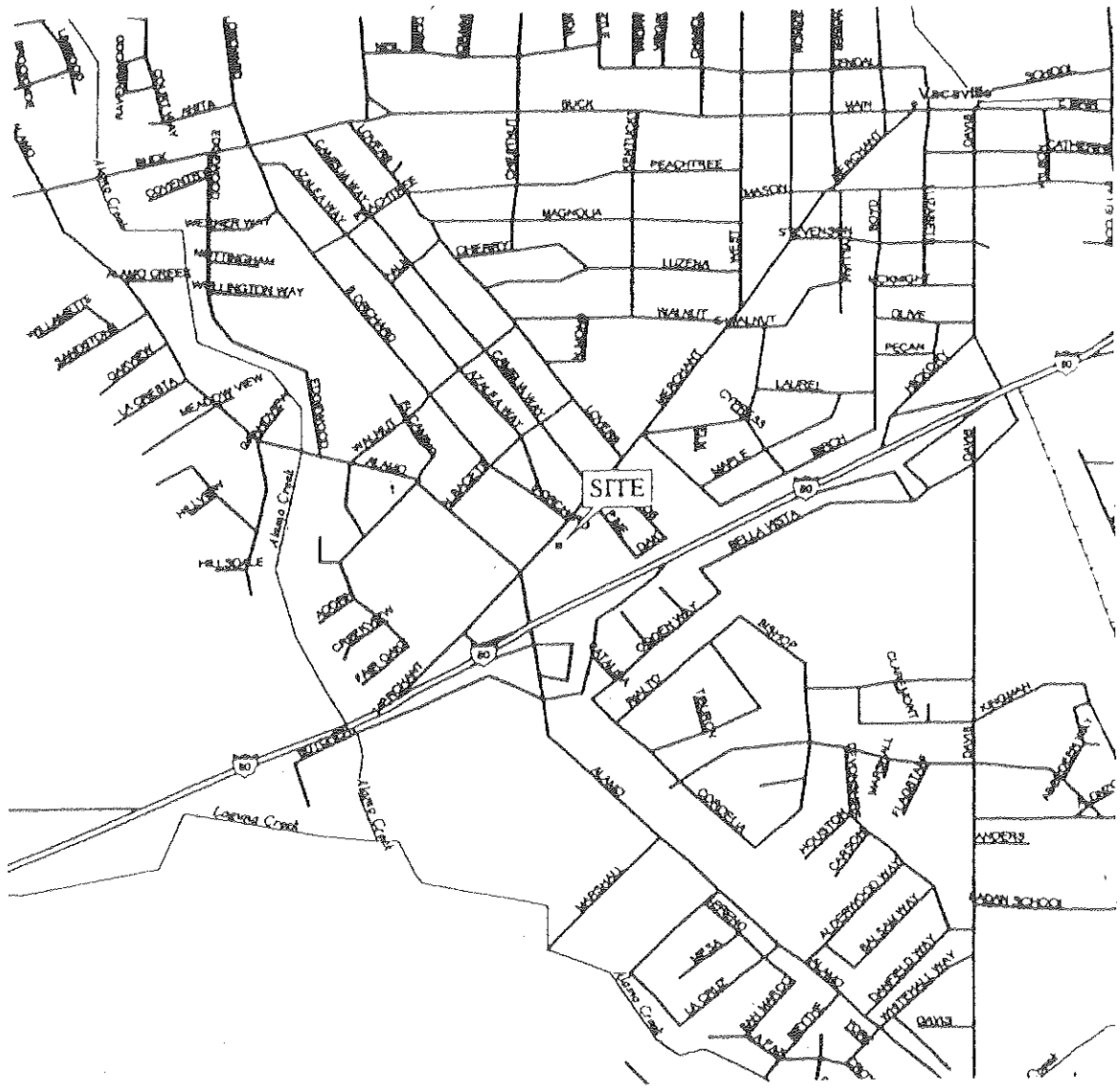
Sincerely,
HORIZON ENVIRONMENTAL INC.

Emil D. Kruck
Project Geologist

Rexford Smith
Professional Geologist No. 5307

REGISTERED GEOLOGIST
REXFORD K SMITH
No. 5307
STATE OF CALIFORNIA

Attachments: Figure 1, Site Vicinity Map
Figure 2, Site Plan
SCDRM, November 8, 2005 letter
SCDRM, Environmental Health Services Well Destruction Permits
Horizon Field Methods and Procedures
Copy of landfill ticket disposal fee



Source: Figure Modified From Street Atlas USA, Delorme (1995).

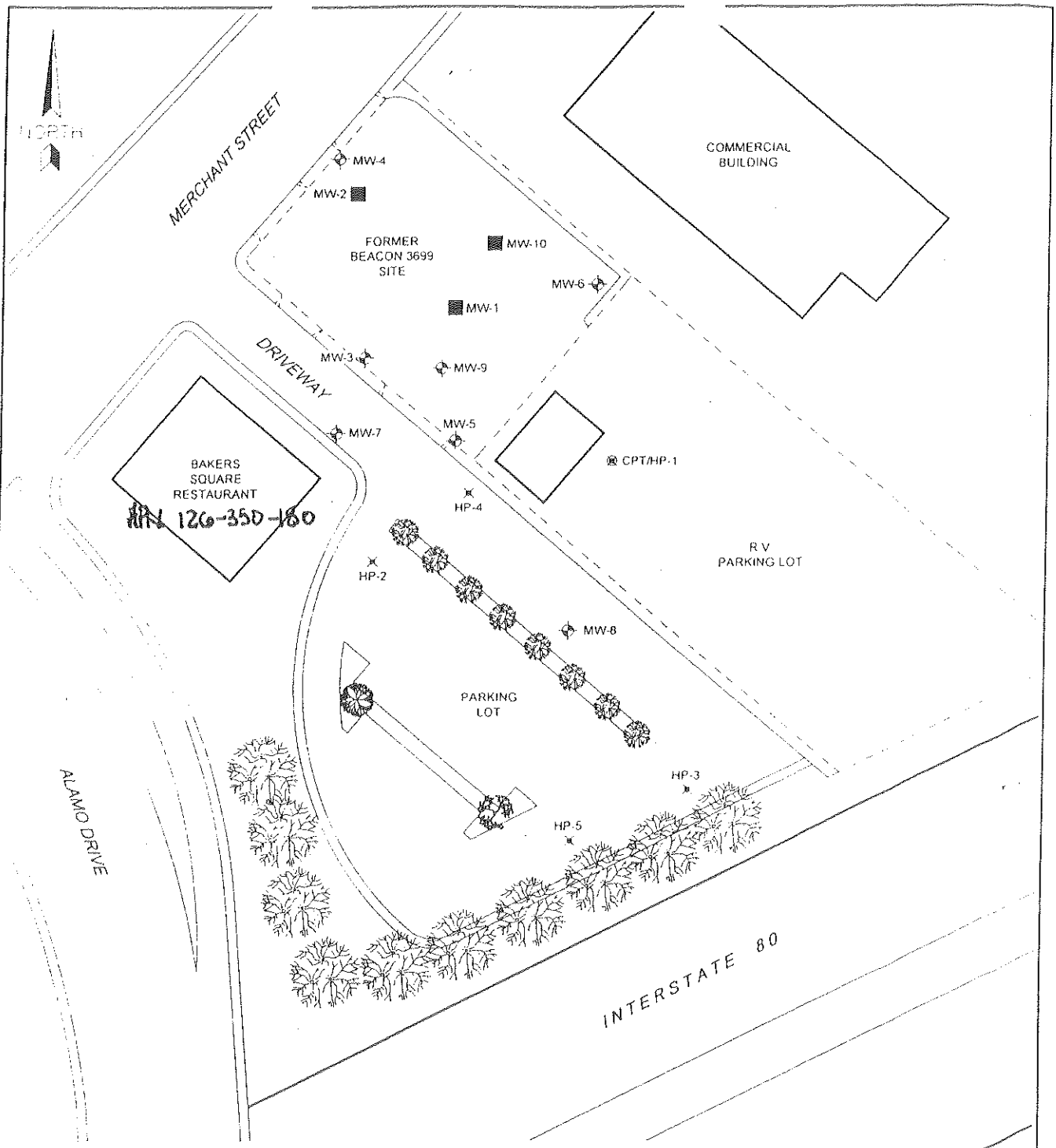
HORIZON ENVIRONMENTAL INC.

Project Number: 1699.45
Prepared by: K. Liptak
Reviewed by: R. Smith

Drawn By: D. Alston
Date: 2/96
Revised Date:

SITE VICINITY MAP
FORMER BEACON STATION 3699
921 Merchant Street
Vacaville, California

FIGURE
1



LEGEND

- MW-10 GROUNDWATER MONITORING WELL
- MW-1 ABANDONED GROUNDWATER MONITORING WELL
- CPT/HP-1 CONE PENETROMTER LOG/ HYDROPUNCH BORING
- HP-5 HYDROPUNCH BORING

0 80 FT

APPROXIMATE SCALE

HORIZON ENVIRONMENTAL INC.

Project Number: 1699 16	Drawn By: M. LaCoste
Prepared By: R. Smith	Date: 2/9/04
Reviewed By: G. Barker	Revised Date

SITE PLAN

FORMER BEACON STATION NO. 3699
921 MERCHANT STREET
VACAVILLE, CALIFORNIA

FIGURE

2

SOLANO COUNTY
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, CA 94533
www.solanocounty.com

Telephone No: (707) 784-6765
Fax: (707) 784-4805

Birgitta Corsello, Director
Cliff Covey, Asst Director

November 8, 2005

Joe Aldridge
Ultramar, Inc.
685 West 3rd Street
Hanford, CA 93232-0466

RE: **Destruction of Existing Monitoring Wells prior to Site Closure**, 921 Merchant St., Vacaville, CA 95688, SCDRM File No. 29-50025

Dear Mr. Aldridge:

The Regional Water Quality Control Board (RWQCB) concurred with our closure recommendation for this case. In order to complete case closure for this site and issue a final closure letter, the existing groundwater monitoring wells both on and off site shall be destroyed according to Solano County Code, Chapter 13.10.

Please submit the well destruction permit application and appropriate fees to this department. You should ensure that the well driller has the proper licenses to perform the work (C-57 license or equivalent). A Fort-Eight (48) hour notice must be given before well destruction and a representative from this Department must be on site to witness the well seals.

If you have any questions please contact me at (707) 784-3311.

Sincerely,

Misty C. Kaltreider, CHMM, P.G.
Geologist

CC: McPhee Properties, 49 York Place, Moraga, CA 94556
Calvin Meehan Tr, C/O Vicorp Restaurants, 400 West 48th Street, Denver, CA 80216
William Kirkpatrick, Golden Hills Prop Mgmt Pmb 156, 4120 Douglas Bl, Ste 306, Granite Bay, CA 95746
Rex Smith, Horizon Environmental, 4970 Windplay Dr, #C5, El Dorado Hills, CA 95762

SOLANO COUNTY
Department of Resource Management
Environmental Health Services

W 00285

WELL PERMIT

☐ BORING ☐ WATER ☐ MONITORING ☐ CATHODIC ☒ DESTRUCTION

☒ PROPERTY OWNER NAME: McPhee Properties II LP
SITE ADDRESS: 921 Merchant St, Vacaville
SITE/SWEEPS #: 29-50025-3

☐ MAILING ADDRESS: 49 York Place, Moraga, CA 94556
APN: 0126-350-170
PERMIT # /APPLICATION # : D-05-30

☒ WELL OWNER: Ultramar, Inc
ADDRESS: 685 West Third St, Hanford, CA 93230

☐ WELL DRILLER: Cascade Drilling, Inc
ADDRESS: 3632 Omec Circle, Rancho Cordova, CA 95742

☒ CONSULTANT: Horizon Environmental, Inc
ADDRESS: 4970 Windplay Dr Suite 5, El Dorado Hills, CA 95762

PERMIT EXPIRATION DATE: December 1, 2006

By _____
Environmental Health Division

NON TRANSFERABLE

* *

THIS PERMIT IS ISSUED SUBJECT TO ALL STATE LAWS AND ORDINANCES IN THE COUNTY, STATE OF CALIFORNIA, AND IS REVOCABLE FOR VIOLATION AT ANY TIME.

SOLANO COUNTY

W 00284

Department of Resource Management
Environmental Health Services

WELL PERMIT

☐ BORING ☐ WATER ☐ MONITORING ☐ CATHODIC ☒ DESTRUCTION

☒ PROPERTY OWNER NAME: Calvin Meehan, c/o Vicorp Restaurants
SITE ADDRESS: 951 Merchant St, Vacaville
SITE/SWEEPS #: 29-50025-3

☐ MAILING ADDRESS: 400 West 48th Ave, Denver, CO 80216
APN: 0126-350-180
PERMIT # /APPLICATION # : D-05-29

☒ WELL OWNER: Ultramar, Inc
ADDRESS: 685 West Third St, Hanford, CA 93230

☐ WELL DRILLER: Cascade Drilling, Inc
ADDRESS: 3632 Omec Circle, Rancho Cordova, CA 95742

☒ CONSULTANT: Horizon Environmental, Inc
ADDRESS: 4970 Windplay Dr Suite 5, El Dorado Hills, CA 95762

PERMIT EXPIRATION DATE: December 1, 2006

By ____________________
Environmental Health Division

NON TRANSFERABLE

* *

THIS PERMIT IS ISSUED SUBJECT TO ALL STATE LAWS AND ORDINANCES IN THE COUNTY, STATE OF CALIFORNIA, AND IS REVOCABLE FOR VIOLATION AT ANY TIME.

HORIZON ENVIRONMENTAL INC.
FIELD METHODS AND PROCEDURES

The following section describes field procedures that will be completed by Horizon Environmental Inc. (Horizon) personnel in performance of the tasks involved with this project.

1.0 HEALTH AND SAFETY PLAN

Field work performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

2.0 LOCATING UNDERGROUND UTILITIES

Prior to commencement of work on site, the location of underground utilities will be researched with the assistance of Underground Service Alert (USA). USA will contact the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Work associated with the borings and monitoring well installations will be preceded by manual hand augering to avoid contact with underground utilities.

3.0 SOIL BORING AND SOIL SAMPLING PROTOCOL

Soil borings and soil sampling will be performed under the supervision of a Horizon geologist. The soil borings will be advanced using a truck-mounted hollow-stem auger drilling rig. To reduce the chances of cross-contamination between boreholes, downhole drilling equipment and sampling equipment will be cleaned between borings. To reduce cross-contamination between samples, the split-barrel sampler will be washed in a soap solution and double-rinsed between each sampling event.

Soil sampling will be conducted in accordance with ASTM 1586-84. Using this procedure, a split-barrel sampler (California-type sampler) lined with brass sample sleeves will be driven into the soil at approximately five-foot intervals by a 140-pound weight falling 30 inches. The number of blow counts required to advance the sample 18 inches will be recorded at each sample interval. Generally, the bottom soil sample will be sealed in the brass sleeve and stored at approximately 4°C for transport to the laboratory. The soil samples will be sealed in the sleeves using Teflon sheets and plastic caps; labeled; and promptly placed in iced storage.

Generally, the upper portions of each soil sample will be extruded from the brass sleeves, placed in a plastic bag, and sealed for later screening with a field calibrated (using isobutylene) Thermo Environmental Instruments Model 580 Organic Vapor Meter (OVM). Another portion of the soil sample was used for classification and description. After the portion of the soil sample is placed in the plastic bag, it will be allowed to warm, inducing volatilization of petroleum hydrocarbon vapors. The headspace vapors will then be screened with the OVM. The highest observed reading will be recorded on the boring logs.

Composite characterization samples will be collected from soil stockpiles generated at the site. A composite sample is four sample locations (as discrete samples) per composite. The composite characterization samples will be collected from the stockpiled soil by selecting random locations accessible around the soil pile, removing approximately six inches of soil, and driving a clean brass sleeve into the soil pile at the selected location. The number of samples collected will be based on the estimated amount of stockpiled soil. Generally, one composite soil sample is collected per 50 or 100 cubic yards of soil. The samples collected will be prepared and chilled for transport under Chain-of-Custody protocol, and sent to a State-certified laboratory for the analyses requested.

4.0 GROUNDWATER DEPTH EVALUATION

Depth to groundwater will be measured to the nearest 0.01-foot using an electronic hand-held water level indicator. The tip of the probe will be examined to evaluate whether a separate-phase hydrocarbon (SPH) sheen was present.

5.0 MONITORING WELL DEVELOPMENT/PURGING AND SAMPLING

Following installation, the wells will be surged with a surge block to remove fines from the sand pack. After surging, groundwater will be purged from each well using a bailer or centrifugal pump to remove sediment and enhance representative sample quality.

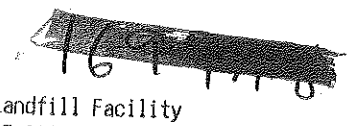
Groundwater sampling events conducted after the initial well development will be preceded by purging a minimum of three well casing volumes as described above. Purge water will be monitored for the parameters temperature, pH, and conductivity until stabilized. Wells will be allowed to recharge to 80% before sampling. If wells dewater, they will be allowed to recharge for a minimum of one hour prior to sampling.

After the water levels within the wells stabilized, a sample will be collected with a clean disposable bailer. Samples will be contained in air-tight vials, packed on ice, and transported to the laboratory for analysis. Groundwater samples will be transported to the laboratory and analyzed within the EPA-specified holding time for requested analyses. Each sample container submitted for analysis will have a label affixed to identify the job number, sample date, time of sample collection, and a sample number unique to that sample. Samples will be analyzed by a California-certified laboratory

A Chain-of-Custody form will be used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them will relinquish the samples by signing the Chain-of-Custody form and noting the time. The Sample Control Officer at the laboratory will then verify the sample integrity and confirm that the sample was collected in the proper container, preserved correctly, and that there is an adequate volume for analysis.

6.0 WELLHEAD TOP OF CASING MEASUREMENT

The top of each new well riser will be measured to allow correlation of the groundwater levels at the site. The measured point on each well riser will be marked to help insure future groundwater level measurements are taken from the same location. All measurements will be measured relative to a surveyed benchmark for Global Positioning System (GPS) locations (X and Y coordinates), and will be measured to the nearest 0.01-foot relative to a surveyed benchmark for the well elevations (Z coordinates).



Kiefer Landfill Facility
COUNTY OF SACRAMENTO
Hours: Mon-Fri 6:30am-4:30pm
Sat-Sun 8:30am-4:30pm

Weighed: Danny
BILL TO: 0
CASH CUSTOMER

Vehicle ID:
Reference: HORIZON
REMARK: 7H78843

Origin: SOLANO, COUNTY OF
DATE IN: 12/14/2005 TIME IN: 09:09:43
DATE OUT: 12/14/2005 TIME OUT: 09:40

INBOUND TICKET Number: 02-607384

SCALE 1 GROSS WT.	10400	LB
SCALE 2 TARE WT.	6860	LB
NET WEIGHT	3540	LB

Qty	Description	Amount
1.77	Normal Refuse	46.00

NET CASH AMOUNT: 46.00

AMT. TENDERED: 46.00
CHANGE AMOUNT: 0.00
CHECK # 12793

X_____